

REMARKS

Claims 11-15 and 17 are pending. In the Office Action dated August 30, 2007, then pending claims 11-16 were rejected on the following grounds: claims 11-14 were rejected under 35 U.S.C. 102(b) as anticipated by US Patent No. 3,744,884 to Filipovich; claim was rejected under 35 U.S.C. 102(b) as anticipated by US Patent No. 4,993,815 to Yamazaki; and claim 16 was rejected under 35 U.S.C. 103(a) as obvious over Yamazaki in view of Filipovich. In addition, the Office Action objected to the title and to errors in the specification as filed. In response, Applicants submit this Amendment. Applicants have amended the title, the specification and the claims. In particular, claims 11-15 have been amended and dependent claim 16 has been canceled and replaced with new dependent claim 17.

Rejection of Claims 11-14 under 35 U.S.C. 102(b)

Claims 11-14 stand rejected under 35 U.S.C. 102(b) as anticipated by Filipovich. Filipovich does not disclose expressly or inherently each of the elements of independent claim 11. In the Office Action, Filipovich is relied on as disclosing, inter alia, first and second spiral tracks, "a cam body (a carrier body 50, Fig 1) in which sliding portions having a smaller diameter than that of a middle portion of a cylinder are formed at both ends of the cylinder (slightly less than the internal diameter of the barrel formed by the barrel portion)" (See Office Action at page 4), "a first cam frame (first barrel portion 16) having another cam plane (abutments 22, Fig 1) confronting the one cam plane (cam surface portions 20) of the first cam groove" (Id.), "a second cam frame (second barrel portion 24) having another cam plane (spacer member 36, Fig 1) confronting the one cam plane (cam surface portions 40 of the second cam groove (cam track 68))" (Id), and "a forcing device (a sleeve 90, Fig 2) which contacts a cam groove inserting member." Filipovich does not in fact recite the elements original claim 11 so

as to anticipate it. However, to clarify the claimed invention, Applicants have amended claim 11.

Claim 11 now makes clear that a first and second spiral grooves are formed by a cam base body that has "a generally cylindrical middle portion and first and second sliding portions formed at both ends of said middle portion" and at least two cam frames. As further recited in claim 11, there are provided "a first cam frame having another cam plane confronting said cam plane of the first cam groove and provided non-rotatably so as to be able to slide on said first sliding portion" and "a second cam frame having another cam plane confronting said cam plane of the second cam groove and provided non-rotatably on the second sliding portion so as to be able to slide." See, for example, Figure 17 of Applicants original application showing cam base body 251, having sliding portions 251b, 251c, and cam frames 252, 253. In contrast, Filipovich discloses a first barrel portion 16 and second barrel portion 24. The Filipovich patent explains:

In this preferred embodiment, a first barrel portion 16 is integral with and extends axially from the face plate member 12. On the remote end edge 18 of that barrel portion are formed several cam surface portions 20, shown as three, and therebetween a corresponding number of abutments 22. Relative to the abutments on this first barrel portion, a second barrel portion 24 is substantially aligned and fixedly positioned by attaching members 28, shown as self tapping screws. The screws pass through locating holes 30 in the second barrel portion into receiving seats 34 in the abutments of the first barrel portion. A plurality of spacer members 36 are arranged on the adjacent edge of the second barrel portion to cooperate with the abutments 22. On the remainder of the edge of the second barrel portions are formed cam surface portions 40 which cooperate with the cam surface portions 20 of the first barrel portion. The cam surface portions prescribe an axially effective cam track 44 in which a lens element carrier or lens cell 48 is adjustably supported.

As disclosed above, in Filipovich, an axially effective first cam track 44 is prescribed by the cam surface portions 20 and 40 of the first and second barrel portions. However, there is no disclosure or suggestion of a cam base body that has "a generally cylindrical middle portion and first and second sliding portions formed at both ends of said middle portion" and at least two cam frames wherein "a first cam frame having another cam plane confronting said cam plane of the first cam groove and provided non-rotatably so as to be able to slide on said first sliding portion" and "a second cam frame having another cam plane confronting said cam plane of the second cam groove and provided non-rotatably on the second sliding portion so as to be able to slide." The original office action points to the disclosure of abutments 22 as forming another cam plane of the first cam frame. However, from the language of Filipovich it is clear that abutments 22 are not a cam plane of a first cam frame.

Moreover, Filipovich does not disclose first and second spiral cam grooves. To the extent, Filipovich even discloses a second cam groove, Filipovich explains: "The first barrel portion 16 further includes several axially effective second cam surface portions 60, aligned with and equal in number with the first cam surface portions 20. Attached to the rear surface of the first barrel portion is a third barrel portion or cap member 62 having edge cam surface portions 66 cooperating with the cam surface portions 60 of the first barrel portion 16 to define a cam track 68." As explained, cam track 68 is formed between the first barrel portion and a third barrel portion that is attached to the rear of the first barrel portion. Again, this does not anticipate or render obvious the device of claim 11 requiring, inter alia, a cam base body that has "a generally cylindrical middle portion and first and second sliding portions formed at both ends of said middle portion" and at least two cam frames wherein "a first cam frame having another cam plane confronting said cam plane of the first cam groove and provided non-rotatably so as to

be able to slide on said first sliding portion" and "a second cam frame having another cam plane confronting said cam plane of the second cam groove and provided non-rotatably on the second sliding portion so as to be able to slide."

Furthermore, Filipovich fails to disclose the cam groove inserting member.

Although original claim 11 recited a "cam groove inserting member" the Office Action fails to point to any disclosure in Filipovich of a cam groove inserting member. For this reason alone, claim 11 is not anticipated by Filipovich. For clarification, amended claim 11 now recites "cam groove inserting members, each of which is received within one of the first and second spiral grooves." See, for example, cam pins 21c and 22c in Figure 19 of Applicants' original specification. Filipovich also fails to disclose the forcing device of claim 11 which is used to connect the first and second cam frames to the cam base body. There is no such disclosure in Filipovich. The office action points to sleeve 90 of Filipovich. The sleeve 90 is rotated around optical axis to move a carrier 50 in a direction of optical axis, so as to work as a so-called focus adjustment ring. However, sleeve 90 does not serve any connection function. Rather, the barrel portions 16 and 24 of Filipovich that the Office Action identifies as relevant to claim 11 are connected by screws 28. Those screws 28 do not connect the first and second cam frames to the cam base body as required by claim 11.

Dependent claims 11-14 are not anticipated for the same reasons independent claim 11 is not anticipated. Additionally, claim 12 is not anticipated in that Filipovich fails to disclose an adjusting means for adjusting a distance between the confronting cam planes of each of the first and second cam grooves. As discussed above, Filipovich does not form first and second spiral cam grooves. The Office Action points to sleeve 90 as both the forcing device of claim 11 and the adjusting mechanism of claim 12. Sleeve 90 is neither. Accordingly, claim 12

is not anticipated by Filipovich. Claim 14, which also recites a forcing device, is not anticipated for the same reasons that claim 11 and claim 12 are not anticipated.

Claim 13 is not anticipated on the separate ground that Filipovich fails to disclose "at least one of the first and the second spiral grooves is sloped, and wherein the sloped cam plane gives a cam driving force along a direction of the rotational axis of the cam groove and pushing force along a direction orthogonal to the direction of the rotational axis of the cam groove to the cam groove inserting member." See for example, sloped or slanted cam surfaces 40b and 41b in Figure 20 of Applicants original specification.

Accordingly, claims 12-14 are not anticipated by Filipovich.

Rejection of Claim 15 under 35 U.S.C. 102(b)

Claim 15 has been amended to clarify Applicants' invention. However, even before amendment, claim 15 recited a cam groove inserting member provided on the holding frame which is not disclosed in Yamazaki. Additionally, Yamazaki does not disclose a rotational axis rod having gears at the both ends thereof, or a corresponding member to the rod. Rather, the Office Action points to an imaginary rotation axis "O." Axis "O" in Yamazaki is not "a rotational axis **rod**" that has gears at both ends thereof. As claimed first and second groups of rate reducing gears are provided to engage those gears at the ends of the **rod**, but the Office Action incorrectly treats the two groups of gears as corresponding to the same zooming transmission gear 1b of Yamazaki.

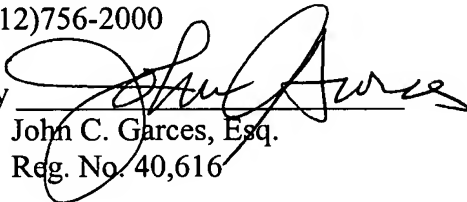
Dependent claim 16 has been canceled and replaced by dependent claim 17. Dependent claims 17 is not obvious over the combination of Filipovich and Yamazaki for the same reasons that claim 11 is not anticipated by Filipovich. Yamazaki is equally unavailing.

For the foregoing reasons, claims 11-15 and 17 are allowable over the cited prior art.

The Examiner is urged to telephone Applicants' undersigned counsel if it will advance the prosecution of this application. The Patent and Trademark Office is authorized to charge any fees required for the entry of this Response, including fees for an extension of time, and any further fees that are properly assessable in this case, or to credit any overpayment, to Deposit Account No. 50-0675, Order No.848075/0067. In the event that an extension of time is needed for entry of this Response that is not otherwise provided for, such extension of time is hereby respectfully requested.

Respectfully submitted,

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Dated: November 30, 2007
New York, New York